The status of Brown-chested Jungle Flycatcher *Rhinomyias brunneatus* in Vietnam

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The number of records of some migratory species is so low that there are insufficient data to infer status, even in countries within their normal distribution. Brown-chested Jungle Flycatcher *Rhinomyias brunneatus*, a globally threatened bird, is one such species. We gathered data on the occurrence of this species and 13 other migrant flycatchers in the city of Hanoi, Vietnam, throughout autumn 2010. These data include the second to tenth records of Brown-chested Jungle Flycatcher in Vietnam, and it was the fifth commonest flycatcher recorded in Hanoi during autumn 2010. Records of the species spanned the period 2 September–4 October, thus suggesting that it is a relatively early migrant with a narrow migration period. We also comment on the incidence and patterns of occurrence of other flycatcher species in Hanoi.

INTRODUCTION

Compared with countries in temperate regions, the status of migrant birds in tropical countries is relatively poorly known. For most species, broad patterns of occurrence have been elucidated, and increasingly there are sufficient data to analyse seasonal, geographical and even trend data within certain areas or countries, such as Hong Kong and Thailand (Carey *et al.* 2001, Round 2010). In Vietnam, broad patterns of occurrence are known for most migrants, but are based on relatively few data and remain incomplete for some species.

One poorly known species in Vietnam is Brown-chested Jungle Flycatcher *Rhinomyias brunneatus*, which is unique in its genus in being a long-distance migrant (Taylor & Clement 2006). It is considered uncommon and localised within its breeding grounds in south-east China, and this is likely to have contributed to its listing as Vulnerable (BirdLife International 2012a). In common with other members of the genus *Rhinomyias*, it is a sluggish, unobtrusive forest interior species usually detected by voice (SPM pers. obs.); these traits render it liable to be under-detected. The species spends the non-breeding season in southern Peninsular Malaysia and Singapore (Wells 2007), and within this small range are found primarily in mature lowland moist evergreen forest; they show strong site-fidelity (Wells 2007). Small numbers are recorded annually on passage in Thailand (P. Round *in litt.* 2012). Assuming that it takes a direct migratory route, much of the global population estimated at 2,500–9,999 (BirdLife International 2012a) would be expected to pass through or over Vietnam.

Robson (2011) listed one vagrant record of the species for Vietnam, an individual collected on the campus of the Agricultural University, Hanoi, on 26 April 1981. The bird was initially identified as a Red-eyed Bulbul *Pycnonotus brunneus*, a species endemic to the Sundaic lowlands of Peninsular Thailand, Malaysia and Indonesia (Štusák & Võ Quy 1986). However, knowing this identification to be untenable, C. Robson examined the specimen and reidentified it as the first, and until 2010, the only record of Brown-chested Jungle Flycatcher for Vietnam (C. Robson *in litt.* 2011, Robson 2011).

The present paper re-evaluates the status of Brown-chested Jungle Flycatcher in Vietnam using data collected in Hanoi during 2010. Data are sufficient to document its status in East Tonkin (north-east Vietnam). Occurrence data for all other migrant flycatchers of the genera *Muscicapa*, *Ficedula*, *Eumyias*, *Cyanoptila* and *Cyornis* (genus limits following BirdLife International 2012b) in Hanoi are also presented for the first time, for the purpose of comparison with Brown-chested Jungle Flycatcher.

METHODS

Data collection

Data on the occurrence of migrant flycatcher species during autumn passage were collected between 27 August and 14 November 2010 in the only two accessible large green spaces in Hanoi, namely the Botanical Gardens (21.040°N 105.830°E) and Thonh Nhat Park, commonly called Lenin Park, (21.015°N 105.846°E). At both sites there are no resident populations of any flycatcher species (all authors pers. obs.), thus all flycatchers recorded can be considered migrants. Data were collected by most of the Hanoi-based birdwatchers (SPM, FW, FK, SD) and occasionally by the Ho Chi Minh City based RC. Observations were collated on the Vietnam Bird News blog (http://vietnambirdnews.blogspot.co.uk).

At least one of the two parks was visited on most days. On each visit the observer (very rarely observers) searched actively for flycatchers and recorded all individuals seen to species level. On the rare occasion that one of the parks was visited twice in one day (either twice by the same person or on separate occasions by different people) the highest single observer tally of each flycatcher species is used here. There is thought to be no (or negligible) exchange of birds between the two sites, based on observations of individually identifiable birds. Using the same method it is thought that all or almost all flycatchers remained for only one day.

All birds seen were identified to species with reference to Robson (2011) with the exception of Blue-and-white Flycatcher *Cyanoptila cyanomelana* / Zappey's Flycatcher *C. cumatilis*. Leader & Carey (2012) demonstrated that Zappey's Flycatcher is a species distinct from Blue-and-white Flycatcher. The latter is now considered to include only the nominate and *C. c. intermedia* (Leader & Carey 2012). Since not all males were photographed in 2010, and because identification criteria for females are not yet fully worked out, in this study we assign these birds to *Cyanoptila*. A more thorough review of the status of Blue-and-white and Zappey's Flycatchers in Vietnam is ongoing (Mahood *et al.* in prep.).

Visits to the parks by observers were temporally standardised—almost all visits took place during a one hour period between 07h45 and 08h45 (pre-work, but after the parks have been vacated by people partaking in mass organised exercise sessions), or, occasionally, between 12h00 and 13h00. Habitat in both parks is heterogeneous, but search efforts were spatially standardised because all observers focused on the best areas for flycatchers in the parks. In Lenin Park this was a scrubby area behind a permanently locked toilet block near the south entrance (people unable to access the toilet make use of the area behind it, thus attracting an abundance of flies) whilst in the Botanical Gardens

this was a quiet scrubby area where a blocked drain overflowed and flooded shallow depressions in the grass, creating pools in which mosquitoes bred. In both of these areas the habitat was relatively open in structure, and consequently we believe that detection probabilities between species and observers were close to equal.

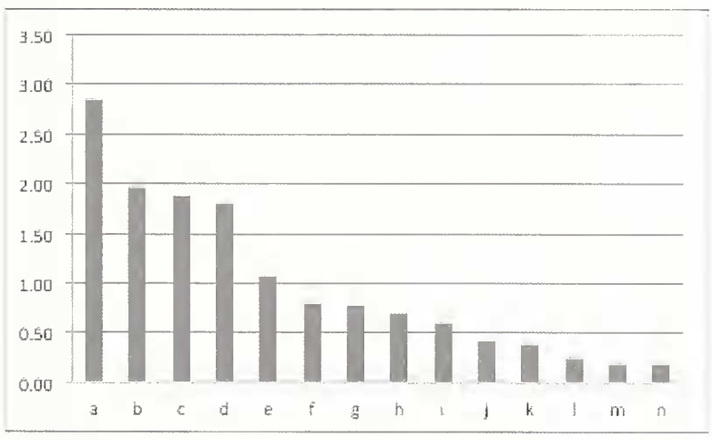
Data analysis

The study was divided into eight 10-day periods. To allow for variation in survey effort (the parks were not visited every day), data were corrected for number of visits, with each park treated separately. Within each period the number of records of each species in each park was divided by the number of visits to the park during that period, and then multiplied by ten (the number of days in the period). Corrected data from the two parks were combined to give an incidence of abundance for each species within each 10-day period. For each species, the incidence of occurrence within the 10-day periods was summed to give an incidence of occurrence over the whole study.

RESULTS

The Botanical Gardens were visited on 40 days (mean 0.5 visits per day) and Lenin Park on 37 days (mean 0.46 visits per day). Thirteen *Muscicapa*, *Ficedula*, *Eumyias*, *Cyanoptila* and *Cyornis* flycatcher species were recorded, consisting of six long-range migrants (originating in Siberian Russia), four medium-range migrants (originating in central or southern China) and three altitudinal migrants (originating from as close as the mountains of northern Vietnam about 50 km to the north and west) (Figure 1) (species limits following BirdLife International (2012b), except where discussed below).

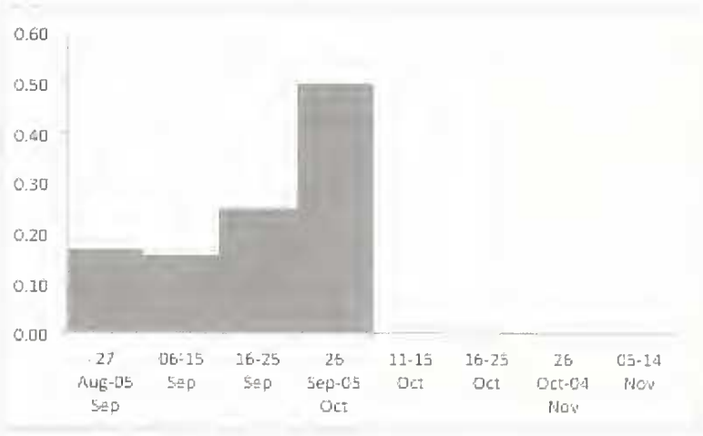
Figure 1. The incidence of occurrence of flycatcher species in Hanoi during autumn 2010, corrected for observer effort. Key: a. Brown Flycatcher *Muscicapa dauurica*; b. Yellow-rumped Flycatacher *Ficedula zanthopygia*; c. Taiga Flycatcher *F. albicilla*; d. Dark-sided Flycatcher *M. sibirica*; e. Brown-chested Jungle Flycatcher *Rhinomyias brunneatus*; f. *Cyanoptila* (see text); g. 'Chinese Blue Flycatcher' *Cyornis rubeculoides glaucicomans*; h. Hainan Blue Flycatcher *C. hainanus*; i. Snowy-browed Flycatcher *F. hyperythra*; j. Mugimaki Flycatcher *F. mugimaki*; k. Verditer Flycatcher *Eumyias thalassinus*; l. Brown-breasted Flycatcher *M. muttui*; m. 'Green-backed Flycatcher' *F. narcissina elisae*; n. Ferruginous Flycatcher *M. ferruginea*.



Brown-chested Jungle Flycatcher was the fifth commonest migrant flycatcher in Hanoi during autumn 2010 (Figure 1). It is a relatively early passage migrant (Figures 2 & 3). Nine individuals were recorded—in the Botanical Gardens on 2, 9, 14, 23 and 28 September.and in Lenin Park on 21, 23 and 26 September and 4 October.

Three additional species often grouped with flycatchers, namely Black-naped Monarch *Hypothymis azurea*, Asian Paradise-flycatcher *Terpsiphone paradisi* and Grey-headed Canary-flycatcher

Figure 2. The incidence of occurrence per ten-day period of Brown-chested Jungle Flycatcher in Hanoi during autumn 2010, corrected for observer effort.



Culicicapa ceylonensis, were also recorded during the study period, the first two as passage migrants and the last as a winter visitor, but were not systematically counted.

DISCUSSION

At least during 2010, Brown-chested Jungle Flycatcher was a fairly common autumn passage migrant in East Tonkin, Vietnam. Data corrected for effort indicate that this species was the most abundant short- or medium-range migrant flycatcher recorded during our study. It is difficult to account for the absence of records in earlier years. It seems unlikely that the recent upsurge in records reflects a genuine increase in abundance of the species on passage in Vietnam. Owing to its superficial similarity to Asian Brown Flycatcher *Muscicapa dauurica* it is plausible that birdwatchers overlooked the species in the past. However, given the number and quality of birdwatchers resident in or visiting Vietnam over the last 20 years this is unlikely. The almost complete absence of previous records can best be accounted for by a combination of migration strategy and birdwatcher behaviour. Most birdwatching aimed at observing passage migrants in Vietnam has taken place in coastal sites, where Brown-chested Jungle Flycatcher has not been recorded. It is possible that it avoids the coast during migration.

The number of Brown-chested Jungle Flycatchers recorded during our study is remarkable, considering that during the last 10 years the number of birds recorded in Thailand (where there are considerably more birdwatchers and photographers and a well established network of reporting and disseminating information) is typically less than five annually, and there are still occasionally years when none is recorded (P. Round *in litt.* 2012). Our data might represent a tiny sample of the number of Brown-chested Jungle Flycatchers that pass through Vietnam every year. The results indicate that the species passes through Hanoi during a relatively short window centred on September. Indeed, over half of the records were made during a one-week period spanning 21–28 September. However, it is possible that the timing of migration varies between years. Evidence that the occurrence of Brown-chested Jungle Flycatchers in Hanoi in 2010 was not a one-off phenomenon was provided in 2012 when two or three individuals were recorded between 13 and 16 September (Le Manh Hung and J. C. Eames *in litt.* 2012).

During the study Asian Brown Flycatcher was the most abundant migrant flycatcher and had a protracted migration period in keeping with a bird with a large source population and wide geographic range (although it was not recorded in August and there was an obvious peak in records in late September); it was followed by Yellow-rumped Flycatcher *Ficedula zanthopygia*, Taiga

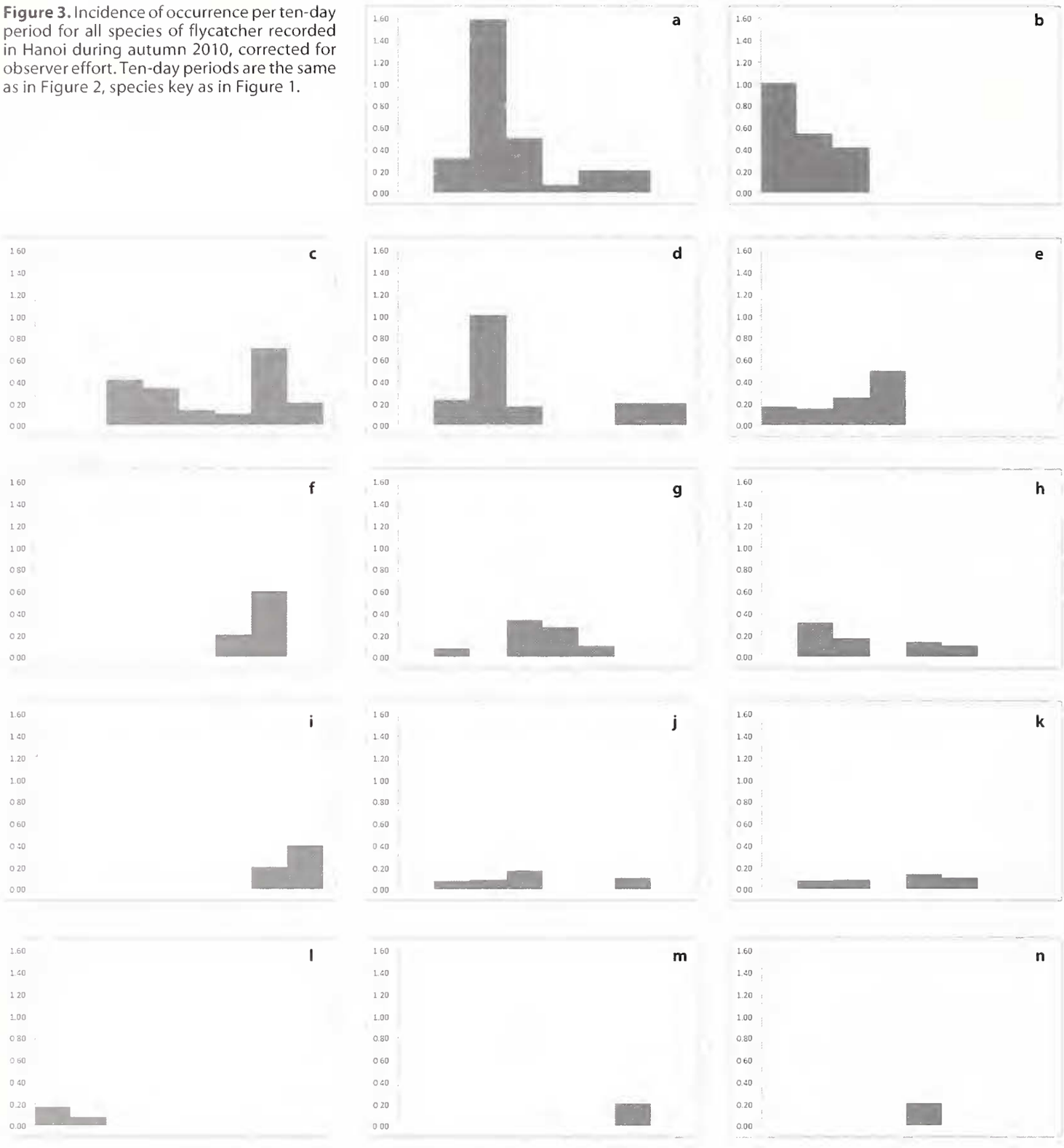


Figure 3. Incidence of occurrence per ten-day period for all species of flycatcher recorded in Hanoi during autumn 2010, corrected for observer effort. Ten-day periods are the same as in Figure 2, species key as in Figure 1.

Flycatcher *F. albicilla* and Dark-sided Flycatcher *Muscicapa sibirica*. All four species have relatively large source populations (Taylor & Clement 2006) and are long-range migrants, although Yellow-rumped Flycatcher breeds as far south as north-east China (Brazil 2009). Timing of migration differs between these species: Yellow-rumped Flycatcher was only recorded during the first half of the study period and Taiga Flycatcher was not recorded before the beginning of October, whilst Dark-sided Flycatcher showed a protracted migration period with a peak in records that corresponded to that of Asian Brown Flycatcher. This peak might represent either a genuine similarity in migration timing or favourable conditions for grounding migrants in Hanoi.

The remaining nine flycatcher species were recorded less often. Except for Mugimaki Flycatcher *Ficedula mugimaki* and potentially *Cyanoptila*, all of these species are exclusively short- or medium-range migrants. The small number of records of most of these scarcer species allows only tentative conclusions regarding the timing of their migration through Hanoi. Mugimaki Flycatcher records were spread out throughout the study period. In contrast, all of the *Cyanoptila* records were in mid- to late-October. The single record of 'Green-backed Flycatcher' *Ficedula narcissina elisae* was also relatively late (1 November 2010). The latter has a similar breeding and wintering distribution to Zappey's Flycatcher. Subsequently 'Green-backed Flycatcher' has been recorded in Hanoi in November 2012 (J. C. Eames *in litt.* 2012) and the species was recorded twice in Cambodia on 19 and 20 November 2012 (R. Martin verbally 2012, SPM pers. obs.). These data indicate that this species migrates later than the other northerly breeding species

in the study. This correlation of migration timing perhaps provides some support for the theory that most of the *Cyanoptila* records constituted Zappey's Flycatcher rather than the more north-easterly breeding Blue-and-white Flycatcher *sensu stricto C. c. cyanomelana* and *C. c. intermedia*. Brown-breasted Flycatcher *Muscicapa muttui* has an atypical migration strategy for a China/north Vietnam breeding species in that it overwinters in the Indian subcontinent (Rasmussen & Anderton 2005). Data indicate that it is a very early migrant in Hanoi, and this is reinforced by records made in subsequent years (SD pers. obs.). Our records of Snowy-browed Flycatcher *Ficedula hyperythra* are noteworthy because they are the first records of the species in the lowlands of Vietnam. They probably represent altitudinal migrants from the hills close to Hanoi.

The period of passage for Brown-chested Jungle Flycatcher in Hanoi is earlier than the bulk of the flycatcher species. It fits within the known pattern of occurrence of the species in Thailand, where birds are typically recorded during late September and early October. It is much earlier than other central Chinese breeding flycatchers except 'Chinese Blue Flycatcher' *Cyornis rubeculoides glaucicomans*. The closest known breeding population of Brown-chested Jungle Flycatcher to Vietnam is in adjacent Guangxi province, China (BirdLife International 2001). However, it is conceivable that the species breeds in the country close to the international border with China, but owing to a paucity of ornithological survey effort, particularly in extreme north-east Vietnam, this cannot be confirmed.

Brown-chested Jungle Flycatcher is currently unrecorded in Vietnam outside Hanoi and it has not been found in Laos or Cambodia. The pattern of occurrence of the species in Hanoi and Thailand indicates that it probably occurs as an autumn passage migrant in central Vietnam and perhaps southern Laos and Cambodia. Birdwatchers resident in or visiting those areas should be vigilant to the possibility of encountering the species in September and October. Brown-chested Jungle Flycatcher is recorded annually on spring passage in Thailand, typically during April and early May. The first record for Vietnam remains the only spring passage record for the country. The date of this record is similar to those in Thailand. The lack of subsequent spring records probably represents the limited observer effort at that time of year.

With the benefit of hindsight we should have started the study at the beginning of August, because the passage of flycatchers was already underway when the study began. This should probably not detract from conclusions regarding Brown-chested Jungle Flycatcher, because although passage was fairly high during the first 10-day period, the first record made during that period was quite late and the peak passage period was also the last period in which the species was recorded. There was very little observer attention given to the parks prior to the study, and it is consequently possible that some individuals were missed. The peak passage period for Yellow-rumped and Brown-breasted Flycatchers in 2010 was probably either during the first 10 days of the study period or preceded the study. However, any conclusions regarding the timing of migration of Brown-chested Jungle Flycatcher and other species refer strictly to these sites in 2010 only, and should be tested in subsequent years. After the study was complete, observers continued to visit the parks often until February and recorded only one or two overwintering Taiga Flycatchers and Asian Brown Flycatchers.

Although our study focused on a globally threatened species, data on abundance and distribution of most migrant bird species in Indochina remain sparse. This study demonstrates that useful data on bird species can be obtained even in the most unlikely places. It further indicates that in familiar and unexpected locations interesting species can be found.

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